

WHAT IS CLAIMED IS:

Ins. D' > 1. A language learning terminal utilizing a DSP function, comprising:

5 flash memory sections 1-1 and 1-2 for receiving language learning audio and caption data to store and supply them;

R an interface section 2 for making external audio and caption data readable by internal devices;

10 a DSP section 3 for separating the received data into audio data and caption data in accordance with CE (caption enable) signals of a CPU during reception of data from a communication interface through said CPU so as to store the data into said flash memory sections, and for receiving
15 commands through a host interface bus of said CPU during a play to supply caption data of said flash memory sections through said CPU to an LCD display;

654058.061499 a RAM section 4 for receiving mark numbers to separate regions between a caption and another caption, and for
20 receiving a starting address and an ending address of the caption data and audio data;

CODEC sections 5-1 and 5-2 for receiving audio data from said flash memory through said DSP section to convert the audio signals into analogue audio signals;

25 an amplifying section 6 for amplifying the audio signals of said CODEC sections to output them to a speaker or an earphone;

an LCD driver 7 for receiving the caption data from said CPU to drive an LCD display section;

a rechargeable battery 8 for supplying power to said terminal; and

a microprocessor 9 for shifting the CE signal to high H upon finding a caption data among externally received data, for outputting a mark signal and the caption data through said host interface bus to said DSP section, for shifting the CE signal to low L upon encountering relevant audio data to output the audio data to said DSP section, for transmitting a mark number and a play-back command through a bus to said DSP section upon inputting a play switch to read the audio and caption data from said memory section, for converting the caption data of said DSP section into character signals to display them onto said LCD display, for reading a current mark number upon inputting a forward or reverse switch to output a next mark number or a preceding mark number to said DSP section so as to play back next or preceding audio and caption data, for outputting audio and caption data of said memory section through said communication interface to an external apparatus (PC or a base station of said terminal), and for perceiving memory data amount and empty memory capacity through a bus to output various information of said DSP section and said terminal to said LCD driver.

2. An on-line language learning system comprising:
a data base server 10 for data-basing and storing captioning language learning data for different learning fields, and various music and game data;
a user PC section 20 for receiving various learning

data of said data base server (which have been received through on-line networks such as internet, PC communications, private BBS or the like) to store them into an internal auxiliary memory, and having a modem and a communication interface unit for storing learning data received from a language learning terminal;

a vending machine section 30 having a modem, a PC, an LCD and key switches for receiving captioning language data, music data and game data from a data base through an on-line network or an exclusive line to store them in a DB unit, for showing a relevant learning data as demonstration in accordance with key manipulations, for filling a terminal, for updating a data base through a vending machine managing PC section 40 when new learning data are commercialized;

said vending machine managing PC section 40 managing a plurality of data filling vending machine sections by remote control means, and supplying newly produced data to said vending machine sections; and

a language learning terminal section 50 having a base station section, LCD screen section and a memory section including a filling section and a data buffering section, for receiving learning data from said user PC through a communication interface, and for receiving necessary data from said data filling vending machine section so as to carry out language training, and for transferring data of an internal memory through a communication interface unit of said user PC section into an auxiliary memory device.

3. A captioning type language learning system comprising:

a captioning language learning network server 11 for data-basing and storing various captioning language learning data, music data and game data for respective fields to supply the captioning language learning data to users upon needs;

a communication switching station 12 for receiving captioning language learning data through internet, PC communication, or private BBS; and

a communication network 21 consisting of various wire or wireless communication terminals (such as a FPLMTS terminal 22, a pager 23, a PCS terminal 24, a PHS terminal 25, a PDA terminal 26, a cellular terminal 27, a wireless CATV receiver 19, a wire CATV receiver 28, and a user PC 18) for receiving captioning language learning data through communication networks using a satellite switching station, a wireless switching station, a wire or wireless CATV station and a wire switching station, and consisting of wireless communication terminals having a captioning language training function or consisting of user captioning language learning terminals for receiving captioning language learning data directly from said communication network or through a wire switching station from one of said various terminals.

4. A captioning type language learning terminal comprising:

a modem section 31 for receiving captioned learning

data, music data and game data from a wired switching station through a wired communication network and through a captioning type language learning network server;

an interface section 32 for making external audio and caption data (from a wire or wireless terminal or PC) readable by internal devices;

an internal captioned language learning data memory section 33 for receiving language learning audio and caption data to store and supply them;

10 a CODEC section 34 for receiving audio data through a DSP/CPU section 39 from said data memory section 33 to convert the audio signals into analogue audio signals;

an amplifying section 35 for amplifying the audio signals of said CODEC section to output them to a speaker or an earphone;

15 an LCD driver 37 for receiving the caption data from said DSP/CPU section 39 to drive an LCD display section 38; and

20 said DSP/CPU section 39 separating the received data into audio data and caption data during reception of data from said modem section and a communication interface to store the data into said data memory section 34, converting relevant audio and caption data to supply them to a speaker and said LCD display section 38, and playing
25 back next or preceding audio and caption data upon inputting forward or reverse switch.

5. A wireless data communication terminal having a captioning language training function, comprising:

an RF/IF section 51 for receiving captioning language learning data, music data or game data through an antenna from a communication network to RF-amplify them;

a modem section 52 for demodulating the RF-amplified data signals;

a protocol control section 53 for receiving the demodulated data signals from said modem section 52 to extract data suitable to various communication protocols such as TDMA, CDMA and FLEX;

a CODEC section 54 for receiving audio data to convert the audio signals into analogue audio signals so as to output them to a speaker;

a data transmission control section 56 for receiving information data from said protocol control section 53 to selectively transmit them to an external apparatus, to an LCD display section 58, or to a captioning type language learning data memory section 59;

a DSP/CPU section 55 for controlling general wireless communication functions, for storing captioning language learning data into said data memory, for converting audio and caption data upon inputting a play key to supply them to said speaker and to said LCD display section, and for playing back next or preceding audio and caption data upon inputting a forward or reverse key;

a ROM/RAM section 60 for storing various address data and program data used by said CPU;

said internal captioning language learning data memory section 59 receiving the data from an external apparatus to furnish language learning audio and caption data; and

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a key section 57 having various keys.

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